



STUDY ON PERFORMANCE MEASUREMENT OF THE INDIAN AUTOMOBILE SERVICE SECTOR

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ABSTRACT

In the most successful of industry customers plays an important role as the backbone for his successes. For the progress and establishment of an industry is completely depending on customers and its satisfaction. As we all know that a lot of competitors in the market who manufacture the same product but of varying cost. Not only carrying the cost they also add some features to improve the quality of the product. This Research deals with the importance of customer satisfaction automobile service industries and also presented a review on customer satisfaction, service quality and factors which affect customer satisfaction in Automobile service industries. This study, in particular, showed the potentiality of graph theory and matrix approach for the analysis, evaluation, selection and optimization of service related factors and processes.

In this study, a universal methodology addressed by various researchers was explained in detail and a summary of graph theory and matrix approach applications in various fields of engineering was also shown in different graphs.

KEYWORDS: customer satisfaction, Automobile service industries, Graph theory and matrix approach.

Introduction:

Service quality is an essential aspect for any service provider, and automobile service industry is no exception. The service sector is going through a revolutionary change, which affects the way of living and working. New services are continually being launched to satisfy our existing and potential needs. Service organizations are motley wide in size. The service sector produces intangible goods and more exact services instead of goods. At present most of the person uses vehicle either two wheeler or four wheeler and they expect better service and better quality of their vehicle in different terms such as mileage, comfort, performance, etc. The increment and decrement in the number of customers are totally depending on customer satisfaction. For the marketing of the product the term customer satisfaction is used. It is the key parameter to know the customer expectation for a particular product of the brand. Customer satisfaction is defined as the percentage of total customers who are using the product and experience the quality of service of their service center and they feel happy or satisfy. The investigator has reviewed and consulted researches related to the study, to have a broad and comprehensive understanding of work done in the field. The review has been presented as under: Srikanata et al, (2017) has discussed the first objective of this paper is to identify the critical success factors (CSFs) and their corresponding key performance indicators (KPIs) for supplier development (SD) in a manufacturing environment. The second objective is to develop a methodology to analyze and evaluate the performance for SD using CSFs and their KPIs over the time.

Abujaat et al, (2017) has studied Questionnaire survey of automobile customers, manufacturers and channel partners belonging to NCR and southern region of India was carried out. Initially for proposing PRM framework, a total of 330 responses was collected and analyzed by carrying out factor analysis. Then for proposing PRM index, a case-based methodology was used, with a total of 91 (customers) and 53 (employees of automobile organizations) responses. The major factors identified include trust, commitment enhancement, customer intimacy, relationship enhancement and customer orientation.

Agarwal et al, (2016) graph theoretical methodology is suggested by R.Venkatasamy and V.P.Agrawal [6] for the selection of automobile vehicle. This methodology based on graph theoretic, matrix, and permanent models, which is used in the system and structural analysis of the vehicle and the same has been extended to the evaluation and selection problem. The permanent model yields the suitability index of the vehicles under consideration. The vehicles are ranked according to the suitability indices and the vehicle with the rank number one is the best suitable for the customers' desires for a particular application.

Guptaat et al, (2015) has discussed that Every major shift in policies made by the Indian government, the automotive industry has come out stronger and better. While the shift in policies seems to have mostly been brought by chance events, the Indian government has at least to be credited for making the right decisions and implementing them correctly. Buyer decision processes are the decision-making processes undertaken by consumers in regard to a potential market transaction before, during, and after the purchase of a product or service.

Verma et al, (2014) worked to get the QFD model to improve service quality using customer needs priorities in a 5-star hotel in Indore. In the research, customer satisfaction and importance degree of each need were investigated using the survey method.

Justification of the Study:- Due to the emergence of globalization and liberalization there is a stiff competition among the Automobile industries which are focusing attention on capturing the Indian markets an automobile are no more considered as luxury once, now occupies a part of day to-day life and has become a necessity. The sector seems to be optimistic about posting strong sales in the couple of years in the view of a reasonable surge in demand

Need of the Study

- To provide effective and efficient service to their customers.
- To analyze the growth and trends of the automobile sector.
- To analyze economic indicators supporting Indian automobile.

Objective of the Study:

The objective of this research is to measure the current service quality level of an automobile service center. Service quality level depends on the satisfaction / dissatisfaction of the customers. Dissatisfaction may be caused by various reasons. We have tried to focus on two fold objectives.

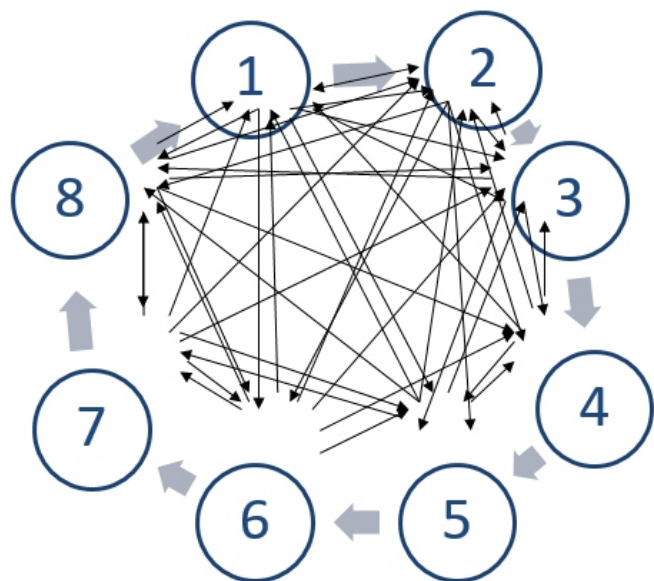
- First, to find out the most influencing factor of dissatisfaction.
- Second, to suggest best possible solution for the root cause of dissatisfaction.

Information Sources: The information has been sourced from various authentic and reliable sources like books, newspapers, trade journals, and white papers, industry portals, government agencies, trade associations, monitoring industry news and developments, and through access to paid databases.

Data collection: The research is based on secondary data collected through various agencies and research groups. These data are to find out coordination between growth and automobiles and various affecting factors using the trend line method to find out the positive correlation between them. No regression coefficient is discovered to show the cause and effect in this study. This study discusses the relation by observing variable trends which may be closely related. It has been proposed that different service dimensions are important in different industries. Initially, authors did not have idea about important dimension for automobile service center under study. Each dimension contains so many factors

Following factors we will find to be prominent from survey report:- Behavior of the Service Advisor, Response of billing counter, Delay of vehicle, Commitment of salesperson, Hospitality, Improper Washing and Cleaning of the vehicle.

Research Methodology: Graph Theory and Matrix Approach (GTMA) was used to meet the results. GTMA is a systematic and logical decision making approach. Matrix approach is useful in analyzing the directional graphs, particularly when numbers of nodes are large and graphs become complex to visualize.

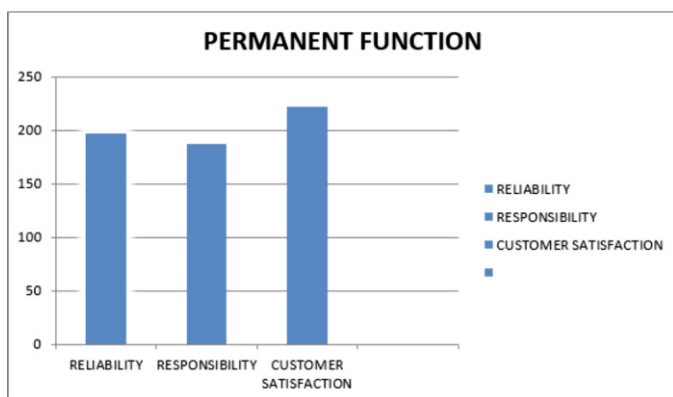
General Methodology of Graph Theory and Matrix Method:-**Figure: Graph theory approach**

Effect and disaffect of nodes to each other:

- 1=2,3,5,6,8
- 2=1,3,4,5,6,8
- 3=1,2,4,5,8
- 4=1,2,3,5
- 5=1,2,3,4,7,8
- 6=1,2,3,4,5,7,8
- 7=1,2,3,4,5,6,8
- 8=1,2,3,4,5,6,7

Factors showing on the graph:

Availability of resources, 2) Govt. Policies, 3) having large distribution channel, 4) Financial performance, 5) Tangible, 6) Customer expectation, 7) Delay of vehicle, 8) Responsiveness.



Out of these eight factors, investigator had taken three best decisions. These decisions were (a) reliability, (b) responsibility, (c) customer satisfaction. After calculating the value of these decisions by GTMA the permanent function of the values were found:- (a) 197.12 (b) 187.72 (c) 222.31. Best outcome was found in customer satisfaction.

Conclusion:

From the above discussions it can be concluded that the customer satisfaction is most important part of any automobile service sector. Thus, the main job of the service industry to improve client satisfaction and quality of service which is helpful to improve the number of new clients. The aim of study is to bring light in the relevance of maintaining quality as a means of offering customer satisfaction toward automobile services sector. The most important trends in India are therefore of rapid population growth, increasing urbanizations, growing per capita incomes and rising motorizations. As Indian cities grow in population, they are also sprawling outwards. The lack of effective urban planning strategy or control is resulting in low density development which is associated with an increase in the number and length of trips. For most Indians this forces an increased reliance on motorized transport. Cars and motorcycles are increasingly necessary to get around. The economic growth, increasing disposable income, and increasing urbanization is creating greater demand for transport and the number of vehicles on India's road system is growing rapidly. India like many other counties in Asia

has experienced a high annual growth rate in excess of 10 %. This is equivalent to doubling vehicle fleets in about seven years. After concluding the decision attributes between reliability, customer satisfaction and responsibility the best decision is Customer satisfaction.

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